

Thermal Stresses in Reactor Structures

77237
SOV/89-8-2-2/30

where

$$\hat{q}^2 = \frac{R^2}{b^2} = \frac{1}{\ln q^2} \left[\frac{\Delta T b}{\Delta T_0} (1 - q^2) + q^2 - 1 \right]$$

and R is the radius ($a < R < b$) of the circle where $T = T_{\max}$ and $\rho = a/b$. In case 4 concerning a plate cooled from two sides

$$\Delta T_{\max} = \Delta T_0 \frac{1}{2} \left(1 + \frac{\tilde{x}}{\delta} \right)^2,$$

where $\frac{\tilde{x}}{\delta} = 1/2 \frac{\Delta T_B}{\Delta T_0}$ and \tilde{x} distance from the center of the plate (of thickness δ) to the point of maximum temperature ($T(\tilde{x}) = T_{\max}$). The significance of parameters b , Ψ_{Tq} , Ψ_{σ_q} , and $\Psi_{\sigma_{\Delta T}}$ is shown in Table 1, and in Figs. 1, 2, and 3.

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Table 1. Influence of the shape of bodies on the temperature drop and temperature stress (Basic formulas).

Parameter	Tube or cylinder cooled from outside (case 1)	Tube cooled from inside (case 2)	Tube cooled from outside and inside	Plate cooled from two sides (case 4)
Outer radius (half-thickness), b (or S)	$\frac{r_0}{1-Q^2}$	$\frac{r_0 Q}{1-Q^2}$	$\frac{r_0}{1-Q}$	$\frac{r_0}{2}$
Inner radius, a	$\frac{r_0 Q}{1-Q^2}$	$\frac{r_0 Q^2}{1-Q^2}$	$\frac{r_0 Q}{1-Q}$	—
Dimensionless temp. drop (form factor) due to inner heat-generating sources $\Psi_{\Delta T q}$	$-\left(\frac{1}{1-Q^2} + \frac{Q^2 \ln Q^2}{(1-Q^2)^2}\right)$	$\frac{Q^2}{1-Q^2} + \frac{Q^2 \ln Q^2}{(1-Q^2)^2}$	$\frac{1}{(1-Q)^2} + \frac{1+Q}{(1-Q) \ln Q^2} \left[1 - \ln \frac{Q^2-1}{\ln Q^2}\right]$	$\frac{1}{2}$

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Table 1 Cont'd

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Parameter	Tube or cylinder cooled from outside (case 1)	Tube cooled from the inside (case a)	Tube cooled from the outside and inside (case b)	Plate cooled from two sides (case c)
Dimensionsless thermal stresses (form factor): due to inner heat-generating sources, Ψ_{σ_q}	$\frac{2q^3}{(1-q^2)^2} \left(\frac{1-q^2}{2q^2} - \frac{q^2 \ln q^2}{1-q^2} - 1 \right)$	$-\frac{2q^2}{(1-q^2)^2} \left(\frac{1-q^2}{2} + \frac{\ln q^2}{1-q^2} + 1 \right)$	$\frac{1+q^2}{(1-q)^2} + \frac{1+q}{(1-q) \ln q}$ $\left. - \left(\frac{1}{\ln q} - \frac{2}{1-q^2} \right) \right _{r=a}$ $\left. - \left(\frac{1}{\ln q} + \frac{2q^2}{1-q^2} \right) \right _{r=b}$	$\frac{2}{3}$ 1
due to temp. differences on cooled surfaces, $\Psi_{\sigma_{\Delta T}}$	--	--	--	--

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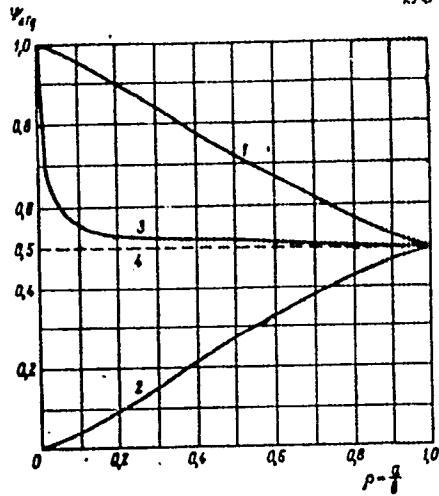
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Fig. 1. Dimensionless temperature drop $\Psi_{\Delta T_q} = \frac{\Delta T_{max}}{\Delta T_o}$,
due to inner heat-generating sources as a function of
the dimensionless inner tube radius $\rho = a/b$ (for
cases 1 to 4)

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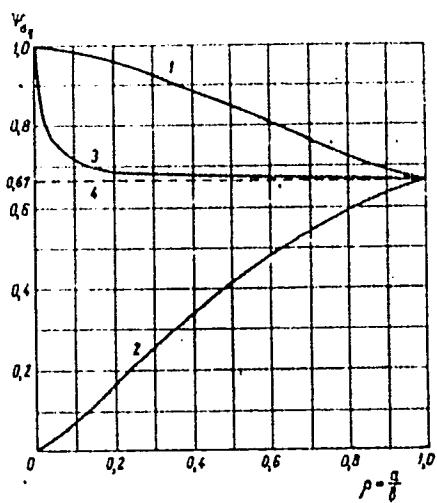
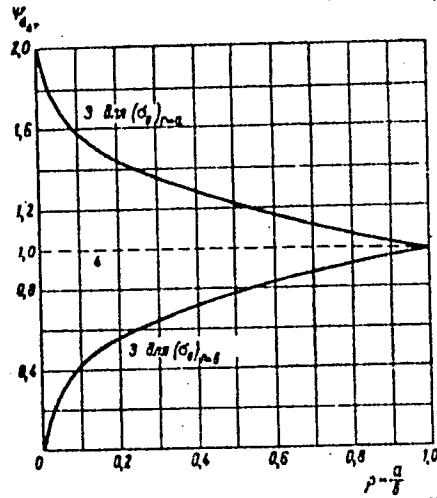
77237
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Fig. 2. Dimensionless thermal stresses $\Psi_{\sigma_q} = \frac{\sigma_q}{\sigma_0}$
(in presence of inner heat-generating sources) as
functions of the dimensionless inner tube radius $\rho =$
 a/b (for cases 1 to 4).

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$$\Psi_{\sigma_{\Delta T}} = \frac{\sigma_{\Delta T}}{\frac{\alpha E}{r v} \Delta T}$$

Fig. 3. Dimensionless thermal stresses due to temperature differences on the dimensionless inner tube radius $\rho = a/b$ (for cases 3 and 4).

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Data in Fig. 1 to 3 agree with calculations done in a more involved manner by Mercxs (see reference in Abstract) for a particular case. Estimates of Dangers From Thermal Stresses. The authors state that in the case of a small number of repeated temperature variations of ductile materials due to relief from thermal tensions, the stationary temperature field usually does not lead to dislocations. One should worry in this case only about excessive deformations or damage to the materials during possible overheating. Repeated build-up of residual deformations and changes in structure are more dangerous than the nonstationary state itself. The authors also discuss the role of creeps and formations of cracks on thermal stresses. Reduced stability to repeated heating of coarse-grained materials is probably due to large dislocations on the grain boundaries. Residual deformations seem to be useful since they are capable of relaxing stresses. In particular, the smaller the thermal expansion, the faster the relaxation of thermal stresses. In the mechanical case the speed of relaxation is proportional to the stored energy. Ways To Reduce the

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Danger From Thermal Stresses. One way of reducing these dangers is to reduce thermal stresses by: (a) utilizing materials with a small value of the $\alpha E/\lambda$ complex, and joining together materials with similar $(\alpha \Delta T)$; (b) choosing shapes permitting maximum free expansion; (c) utilizing smooth shapes and homogeneous cooling conditions; and (g) securing operating conditions which exclude significant and repeated variations in temperature. The second way is to increase the stability of materials by satisfying two requirements contradictory in a sense: (2) augmenting the ductile limit to the point where there is no piling-up of dangerous residual deformations; and (b) by improving the plastic properties of the material, their homogeneity, and fineness of their grain structure. The authors emphasize the importance of the use of smoothly machined surfaces. Conclusions. The methods of the theory of elasticity have two principal limitations: they (a) cannot give account about the microbehavior of the materials, and microstresses,

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together with macrostresses, are an important factor in the starting phases of breakdowns; and (b) they do not take into account effects of the elastically ductile region. The authors emphasize the resulting need for approximate estimates. They also emphasize the need for further experiments which would determine the influence of the number, amplitude, and suddenness of temperature changes on plastic deformations. It would be advantageous to have a characteristic of the material describing its resistance to thermal stresses; e.g., the curve of residual deformation versus the number of thermal cycles up to the appearance of micro-cracks of preassigned size. There is 1 table; 3 figures; and 18 references, 12 Soviet, 1 Austrian, 1 French, and 4 U.S. The U.S. references are: B. Langer, Trans. ASME, 77, Nr 5 (1958); K. Mercxs, Trans. ASME, 80, Nr 5 (1958); B. Gatewood, Thermal Stresses, U.S.A. (1957); R. Dane, AEC publication: Nuclear Reactors, Vol II (1957).

SUBMITTED:

May 9, 1959

Card 19/19

IVANOV, S.A., kand.tekhn.nauk, nauchnyy red.; YUDINA, L.A., red.izd-va;
RUDAKOVA, N.I., tekhn.red.

[Apartment houses made of volumetric elements] Zhilye doma iz
ob'emnykh elementov. Moskva, Gos.izd-vo lit-ry po stroit.,
arkhit. i stroit.materialam, 1961. 188 p. (MIRA 14:7)

1. Nauchno-tehnicheskoye obshchestvo stroitel'noy industrii
SSSR.

(Apartment houses)
(Precast concrete construction)

IVANOV, Serafim Aleksandrovich

[Irrigation of virgin land of Golodnaya Steppe] Oroshenie
tselinnykh zemel' Golodnoi stepi. Moskva, Izd-vo Ministerstva
sovkhozov SSSR, 1957. 81 p. (MLRA 10:6)
G. (Golodnaya Steppe--Irrigation)

IVANOV. S.A., inzh.

Use of electric prospecting for rural water supply purposes. Gidr.
i mel. 12 no.2:27-32 F '60. (MIRA 13:6)

1. Giprovodkhoz Ministerstva sel'skogo khozyaystva SSSR.
(Electric prospecting)
(Water supply, Rural)

PULATOV, U. Yu.; PUZYREV, Yu. V.; IVANOV, S. A.; ABRARXHOJZHAYEV, A.

Construction of irrigation flumes of precast reinforced concrete
in the Golodnaya Steppe. Vop. gidr. no.5:99-106 '62.
(MIRA 15:10)

(Golodnaya Steppe—Irrigation canals and flumes)
(Precast concrete construction)

IVANOV, Stepan Aleksandrovich; MEZENTSEV, Mikhail Danilovich; ZHAVORONKOVA,
I.P., otd.red.; GOLUBYATNIKOVA, G.S., red.izd-va; BEREZLAVSKAYA,
L.Sh., tekhn.red.; KOROVENKOVA, Z.A., tekhn.red.

[Coal mining economics] Ekonomika ugol'noi promyshlennosti.
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960.
149 p. (MIRA 13:4)

(Coal mines and mining)

IVANOV, S. A.

DAIDBEKOV, S. D. Kand. Tekhn. Nauk i DANILLOVA, T. M. Kand. Tekhn. Nauk, DEGOV, V. A.
Inzh., IVANOV, S. A. Inzh., MARAKOV, N. A. Tekhnik-Mekhanik

Leningradskiy nauchno-issledovatelskiy institut akademii komunalnogo khozyaystva
im. K. D. Panfilova

Napryazhennno armirovannyye balki i mekhdubalochnyye zapolneniya dlya perekrytiy pri
stroitel'nykh i remontno-stroitel'nykh rabotakh v zhilykh zdaniyakh lenigrada

Page 70

SO: Collections of Annotations of Scientific Research Work on Construction, completed
in 1950.
Moscow, 1951

IVANOV, S. A.

"Seasonal changes of the Groin Glands in animals and Factors underlying them", (p. 1087)
by Ivanov, S. A.

SO: Advances in Contemporary Biology (USPEKHI SOVREMENNOI BIOLOGII) Vol. V, No. 6 1953

IVANOV, S.A.

PODTYAZHKIN, V.I.; IVANOV, S.A.; ABDRAZAKOVA, Kh.K.

Torsion of the pedicle of a dermoid cyst of the left ovary in a
nine-year-old girl. Akush. i gin. 33 no.4:117 Jl-Ag '57. (MIRA 10:11)

1. Iz khirurgicheskogo otdeleniya Kamyshlinskoy rayonnoy bol'nitsy
(glavnnyy vrach V.I.Podtyazhkin) Kuybyshevskoy oblasti.
(OVARIES--TUMORS)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000619120005-7

VIGURA, G.T.; IVANOV, S.A.; SIL'VESTROV, V.D.

Straightening of grinding wheels without diamonds in thread grinding and
centerless grinding. Stan.i instr. 24 no.7:28-30 Jl '53. (MLRA 6:8)
(Grinding and polishing)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000619120005-7"

IVANOV, S.A., inzhener.

Automatic press felt straightening. Bum.prom.30 no.10:21-22
0 '55. (MLRA 9:1)

1.Krasnokamskaya bumazhnaya fabrika "Goznak".
(Papermaking machinery)

IVANOV, S.A.

Torsion of punched card paper. Bum.prom.30 no.6:21-23 Je '55.
(Paper industry) (MLRA 8:9)

IVANOV, S. A.

Automatic regulation of dehumidifiers. Tr. from the Russian. p. 60.
PAPIR A CELULOSA, Prague, Vol. 11, no. 3, Mar. 1956.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956, Unci.

IVANOV, S.I.; KOSYAKINA, N.N.

Carbonate rocks from sediments occurring in their place of origin in Yaroslavl Province. Shor. stud. nauch. rab. V. A. stud. o-tva IAr. nos. 1nd. Inst. no. 3:5-24 '59.

(MIRA 14:7)

1. Nauchnye rukovoditeli stars'iy prepodavatel' O.A. Kosyakina i dotsent A.N. Ivanov.
(Yaroslavl Province--Rocks, Carbonate)

PHASE I BOOK EXPLOITATION

SOV/5545

Ivanov, Sergey Aleksandrovich

Proyektirovaniye gruppovykh naladoch tokarnykh avtomatov (Designing the Group-Machining Setups of Automatic Lathes) Moscow, Mashgiz, 1960. 70 p. Errata slip inserted. 5,000 copies printed.

Reviewer: I.N. Kostygov, Engineer; Ed.: M.S. Mirkin, Engineer; Ed. of Publishing House: I.A. Borodulina; Tech. Ed.: P.V. Shchetinina; Managing Ed. for Literature on Machine-Building Technology (Leningrad Department, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This booklet is intended for process engineers, designers, foremen, and automatic-machine setup men.

COVERAGE: Methods for the classification and grouping of parts machined on automatic lathes are discussed. Attention is given to the following: sequence in planning the manufacturing process and designing the cams for typical parts, the economic expediency of the group machining of parts with one set of cams, and materials for determining optimum lot size. Examples in planning the

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Designing the Group-Machining Setups (Cont.)

SOV/5545

manufacturing process for automatic turret lathes and Swiss-type automatic machines in group machining are included and drawings of a set of cams are enclosed. The booklet contains reference tables and auxiliary materials necessary for determining the initial data for planning machining processes performed on automatic lathes. No personalities are mentioned. There are 3 references, all Soviet.

TABLE OF CONTENTS:

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II. Methods of Designing the Setups for Group Machining	13
1. Determining the size of the lot and selecting the typical part	13
2. Designing the group-machining setup of automatic turret lathes for the typical part	15
3. Designing the group-machining setup of Swiss-type automatic machines	26
III. Sample Calculations of Group-Machining Processing-and-Operation Sheets of the Setups and the Construction of the Cams for the Typical Part	36
1. Automatic turret lathes	36

Card<2/5

IVANOV, S.A.

L.V.Lomonosov and physical chemistry. Dokl. na nauch. konf. 1
no.4:15-20 '62. (MIRA 16:8)
(Lomonosov, Mikhail Vasil'evich, 1711-1765)
(Chemistry, Physical and theoretical)

IVANOV, S. A.

"Plane Deformation of a Thin Ring in an Elastic Medium (Certain Problems of the Static Calculation of Underground Pipes and Other Tubular Elements)." Cand Tech Sci, Moscow Engineering Physics Inst, Min Higher Education USSR, Moscow, 1954. (KL, No 5, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

TUPOLEV, M.S., doktor arkh, prof.; SHKINEV, A.N., inzh., dots.;
POPOV, A.A., kand. arkh. dots.; DUZINKEVICH, S.Yu., nauchnyy
red.; IVANOV, S.A., nauchnyy red.; FEDOROVA, T.N., red.izd-va;
KOROBKOVA, N.I., tekhn. red.

[Residential, public and industrial buildings]Grazhdanskie i
promyshlennye zdanija. Moskva, Gosstroizdat. Pt.1.[Residen-
tial and public buildings]Grazhdanskie zdanija. Pod obshchei
red. M.S.Tupoleva. 1962. 275 p. (MIRA 16:3)
(Buildings--Design and construction)

PA 25/49117

IVANOV, S.

USSR/Engineering
Corrosion... Salt Water
Joints, Welded

Jul 48

"An Investigation of Metal Corrosion of Steel
Pile Planks in Sea Water," Dr L. Yelin, S.
Ivanov, Chair of Metal Tech, OIIMF, 6 pp

"Morskoy Flot" No 7

Results of tests on various types of metals and
alloys to determine those most resistant to
corrosion by salt water, and therefore best
suited for maritime construction. Mentions best
type of welded joint for such purposes.

25/49117

IVANOV, S. A.

166T58

USSR/Metals - Protection

Jul 50

"Accelerated Method for Determination of Current Required for Anticorrosive Cathodic Protection,"
S. A. Ivanov, I. B. Ulanovskiy, E. Sh. Rit

"Zavod Lab" Vol XVI, No 7, pp 833-835

Suggests curves of cathodic polarization for determining required polarization potential and corresponding current for complete protection of metal construction against corrosion. Describes method and equipment used for plotting curves of cathodic polarization. Demonstrates determination of values for current required for

166T58

USSR/Metals - Protection (Contd)

Jul 50

protection of two types of steel. Experiments for cathodic protection of same steels in sea water confirmed data obtained from polarization curves.

166T58

USSR/Metals - Testing, Corrosion

Dec 50

"Method for Testing the Dependability and Lasting Quality of Contact in Case of Using Protectors Against Corrosion," I. V. Yelin, S. A. Ivanov, I. B. Ulanovskiy

"Zavod. Lab" No 12, pp 1440-1442

Describes method for evaluating quality of contact between hydraulic structure and its protector against corrosion. Two plates, made of materials used for structure and protector, are connected same way as they would be connected in actual service, and electrical resistance between plates is measured. Two factors

182T86

USSR/Metals - Testing, Corrosion (Contd)

Dec 50

serve for evaluating quality of contact: relative increase in resistance after 10 days and character of resistance-time curve.

182T86

IVANOV, S. A.

IVANOV, S. A.

USSR/Metals - Testing, Corrosion Dec 50

"Installation for Multiple Stress Corrosion Tests,"
S. A. Ivanov, A. S. Krichever, I. B. Ulanovskiy

"Zavod Lab" No 12, pp 1471-1473

Installation consists of holders for specimens, dynamometer, and device which creates necessary stress in specimens. To eliminate electrochem reaction between specimens and holder, all parts of holder and all specimens, except surfaces subjected to action of corrosive medium, are dipped in molten mixt of bitumen and paraffin. Three types of holders for tensile, compression, and bending tests.

182T92

Electrochemistry

CP

Accelerated method of determination of the necessary current density in cathodic protection against corrosion. S. A. Ivanov, I. B. Ulanovskii, and E. Sh. Ritt. Zavodskii Zhurn. 10, No. 3 (1959). -Electrode potential-c.d. curves are drawn by a ballistic galvanometer method for steel samples immersed in sea water, and the c.d. corresponding to the sloping-steep rise of the potential difference at practically constant current from the curve prolonged up to 1500 sec. (c.d. of cathodic protection of the same steel in sea water) continued the values obtained from the polarization curves (0.05 mA /sq. cm.)

L 17276-63 BDS

ACCESSION NR: AP3004374

S/0109/63/008/003/1397/1406

AUTHOR: Ivanov, S. A.; Romanovskiy, Yu. M.

4/5

TITLE: Forced oscillations in a circuit with fluctuating frequency

SOURCE: Radiotekhnika i elektronika, v. 8, no. 8, 1963, 1397-1406

TOPIC TAGS: forced oscillation , fluctuating-frequency circuit

ABSTRACT: A calculation is presented of statistical characteristics of forced oscillations in an RLC circuit having fluctuating parameters (capacitance). Particularly, distribution of amplitudes and phases of steady-state oscillations, under an additive harmonic force, was studied. This extends the information published by Yu. M. Romanovskiy (Izv. AN SSSR, Otd. Tekhn. n., 1960, 4, 133) and by R. L. Stratonovich, et al. (NDV Sh. Fiz.-mat. nauki, 1958, 1, 3, 221). Experimental verification included a 21-kc circuit with a variable capacitance (D-811 semiconductor diodes) and measuring equipment. Good agreement.

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between the theory and the experiment was observed for: probability distribution curves, gain, average value of $\sin \varphi$, effective band of the circuit up to 0,5 intensity of pumping. The best agreement was obtained for statistical characteristics of phase. Higher pumping requires allowance for nonlinearity of the circuit. As the circuit gain never exceeded 3 in the linear region, the circuit is unfit for power amplification purposes. "The authors are deeply thankful to Yu. Ye. D'yakov, S. A. Akhmanov, and R. L. Stratonovich for a useful discussion of the results." Orig. art. has: 9 figures, 20 formulas, and 2 tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University)

SUBMITTED: 14Jun62

DATE ACQ: 20Aug63

ENCL: 00

SUB CODE: PH, GE

NO REF SOV: 006

OTHER: 000

Card 2/2

IVANOV, S. A.

6296. Ivanov, S. A. Ploskaya deformatsiya tonkogo kol'tsa v uprugoy srede. (Nekotoryye voprosy statich. Rascheta podzemnykh trub i drugikh trubchatykh elementov). M., 1954. 15s. 20sm. (M-vo vyssh. obrazovaniya SSSR. Mosk. inzh-Fiz. in-t). 110 ekz. B. Ts. /54-58228/

SO: Knizhamya Letopis' 1, 1955

IVANOV,S., inzhener

Device for semiautomatic flange welding to steel pipes. Mor.
flot 15 no.6:26 Je '55. (MLRA 8:8)
(Pipe flanges--Welding)

IVANOV, S., dotsent.

Cathodic protection from corrosion in sea water with periodic feed
of the protective current. Mor.flot 17 no.5:26 My '57.
(MIRA 10:7)

1. Odesskiy institut inzhenerov morskogo flota.
(Metals--Corrosion) (Polarization (Electricity))

IVANOV, S., kand.tekhn.nauk, dotsent

Possibilities of hydrogen penetration of metals during their
cathode protection from corrosion in sea water. Mor.flot 19
no.6:18-19 Je '59. (MIREA 12:9)

1. Odesskiy institut inzhenerov morskogo flota.
(Corrosion and anticorrosives) (Sea water)

IVANOV, S.A., dotsent; SILAYEV, I.I., inzh.; SNITKOVSKIY, M.M., inzh.

Causes of seam failure in expanding welded boiler tubes. Stal'
22 no.1:72-73 Ja '62. (MIRA 14:12)

1. Odesskiy institut inzhenerov morskogo flota.
(Boilers, Water tube--Welding)

L 26622-65 EMA(k)/EMT(l)/EMI(m)/EMC(t)/EMP(t)/EWP(b) JEP(9) JP/JG
ACCESSION NR: AP5002081 3/0146 64/007/000/0003/0008

AUTHOR: Kharadzha, F. N.; Ivanov, S. A.

TITLE: Investigation of the excitation of ultrasoft x-rays

SOURCE: IVUZ. Priborostroyeniye, v. 7, no. 6, 1964, 3-8

TOPIC TAGS: x ray, soft x ray, ion gage

ABSTRACT: A special device (Fig. 1 of Enclosure) is described which simulates operating conditions in a vacuum ion gage and permits measurements of photovoltaic currents in a vacuum excited by ultrasoft x-rays.

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ACCESSION RR: AP5002081

found that the x-rays excited at accelerating voltages of tens to hundreds of volts
are much more intense than the x-rays excited at higher voltages; the intensity
of the shorter waves varies nonmonotonically with the voltage and depends linearly on

found that the x-rays excited at accelerating voltages of tens of hundreds of volts obey a law different from that of x-rays excited at higher voltages; the intensity of ultrasoft rays varies nonmonotonically with the voltage and depends linearly on the atomic number of the anode material. Orig. art. has 5 figures and 1 formula.

[03]

ACCESSION: Leningradskiy elektrotekhnicheskiy institut im. V. I. Ul'yanova
(Leningrad Electrical Engineering Institute)

SUBMITTED: 11 Jun 64

ENCL: 01

SUB CODE: OP, NP

NO REF SOV: 102

OTHER: 004

ATD PR19S: 3188

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L 26622-65

ACCESSION NR: AP5002061

ENCLOSURE: 01

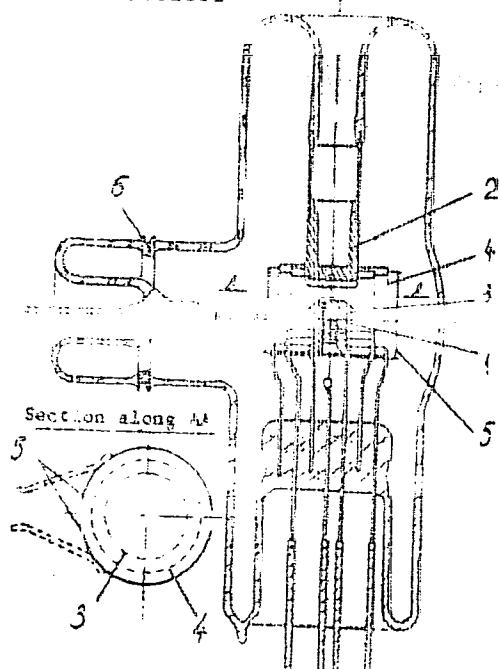


Fig. 1. Device for studying ultra-soft x-rays

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APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000619120005-7"

L 22909-66 EWT(m)/EWA(d)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/DJ
ACC NR: AP6017714 SOURCE CODE: UR/0122/66/000/003/0069/0072
5X1
5
AUTHOR: Sipaylov, V. A. (Engineer); Yakimov, A. V. (Candidate of technical sciences);
Potemkin, V. I. (Engineer); Ivanov, S. A. (Engineer)
ORG: none
TITLE: Phenomena which take place in the surface layer during grinding
SOURCE: Vestnik mashinostroyeniya, no. 3, 1966, 69-72
TOPIC TAGS: steel; case hardening, annealing, tempering, transmission gear,
hardness, grinding, cold working, thermocouple, potentiometer, metallographic
examination/12Kh2N4A steel
ABSTRACT: The combination of mechanical and thermal effects which accompany
the grinding process causes a considerable change in the physical and chemical
state of the surface layer in many cases which may reduce the bearing capacity
of components; therefore, it is important to study the thermal processes which
take place in the surface layer during grinding and to seek methods for con-
trolling these processes.
Cylindrical spur gears ($m = 3.85$ mm, $z_k = 31$, $\alpha' = 20^\circ$, $b = 35$ mm) made
from 12Kh2N4A steel were studied. The gears were case hardened to a depth of
1.1-1.3 mm at 900° centigrade, annealed at 650° C, double annealed at $860 \pm 20^\circ$ C
and at $800 \pm 20^\circ$ C, cold-worked in liquid nitrogen and tempered at $150 \pm 10^\circ$ C.
The experiments were done on a Maag SS30Kh gear hob. An E325M2K wheel was used
for removing a decarburized layer of 0.1 mm in 10 passes at $t = 0.008-0.01$ mm.
Card 1/3 UDC: 621.923

L 27909-66

ACC NR: AP6017714

$v_{kv} = 27 \text{ m/sec}$, $s_{np} = 100 \text{ mm/min}$ and $n = 225$ oscillations per minute. After preliminary grinding the experiments were done with the same wheel at $t = 0.02$, 0.04 , 0.06 and 0.08 mm , $s_{np} = 100, 200$ and 300 mm/min . The grinding wheels were checked for hardness and density before the experiments and trued on both sides and carefully balanced.

The actual temperature fields were concentrated in a region having a depth of $0.1\text{--}0.2 \text{ mm}$ and were inaccessible to direct measurement. The temperature field was therefore simulated to clarify the nature of temperature distribution and its relationship to grinding conditions. The model was a unit which could be used for moving a carbon electrode along the surface of a 12Kh2N4A steel specimen. An electric current was sent through the contact area between the electrode and the specimen and the heat released was checked by measuring the electrical power. An EPP-09 potentiometer and a chromel-alumel thermocouple were used for recording the temperature field of the model.

Distribution of heat between the workpiece and the chip varies with the depth of cut. The amount of heat which goes to the chip may be disregarded for light cuts ($t = 0.02 \text{ mm or less}$). This heat increases with cutting depth and at 0.1 mm is nearly 25% of the total heat for 12Kh2N4A steel. In spite of the insignificant difference in temperatures in the grinding zone between 0.02 and 0.1 mm , the structural transformations during grinding vary with cutting depth in this interval. Metallographic studies were confirmed by analysis.

Card 2/3

L 27909-66

ACC NR: AP6017714

Changes in microhardness revealed that structural transformations take place in the surface layer of carburized steels under the action of high temperatures during grinding. The temperature in the grinding zone must be lowered to reduce these structural transformations. This may be accomplished by reducing the severity of operating conditions (which is extremely undesirable since this also results in a sharp reduction in productivity) or by using sectional grinding wheels. Experiments on intermittent grinding at the Perm Polytechnical Institute indicate that thermal processes may be controlled and the quality of the surface layer may be improved by varying the size of the cutting sections on sectional wheels. Orig. art. has: 8 figures, 4 formulas and 1 table. [JPRS]

SUB CODE: 13, 20, 11 / SUBM DATE: none / ORIG REF: 005

Card 3/3 BLG

ACC NR: AP6021942	SOURCE CODE: UR/0188/66/000/002/0039/0043
AUTHOR: Ivanov, S. A.	
ORG: None	
TITLE: On optimum parametric damping	
SOURCE: Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, no.2, 1966, 39-43	
TOPIC TAGS: dynamic programming, optimal control, optimal automatic control, optimal parametric control, parametric damping optimization, computer/MN-7 computer	
ABSTRACT: This paper discusses the problem of optimum parametric damping of forced oscillations in a system acted upon by a random outside force. Contrary to some conventional approaches with the noise and the control action additive, the present control is effected by a change in one of the system's parameters, e.g. its free frequency. The problem is solved by the method of dynamic programming. The solution obtained shows some new features: for instance, in the discussed example, there will be two instead of the conventional one switching line. Boundaries of applicability of the method were tested by comparing an iterated approximate theoretical solution with a specific exact numerical computer solution. The equation of the investigated system was written in the form	
$\ddot{x} + \beta \dot{x} + (1 - u)x = \xi(t) \quad (1)$ where $\xi(t)$ - white noise, x -	
Card 1/2	UDC: 621.372.41 : 519.83

ACC NR: AP6021942

system coordinate, and $u(t)$ - the control action. An optimum control $u(t)$ is sought for $|u(t)| \leq k$, which will minimize the penalty expression

$v = M(\int C(X_\zeta) d\zeta)$ (2) where $C(X_\zeta)$ - is the penalty function, and X_ζ is the vector of the sufficient coordinates of the system at the moment ζ . With $x_1 = x$; $x_2 = \dot{x}$ as the sufficient coordinates, $C(X_\zeta)$ was taken as x_1^2 . Theoretical approximate solutions of (1) were obtained using the method of R.L. Stratonovich and G.E. Kolosov ("Automatika i Telemekhanika", no. 12, p. 1641, 1964). Experimentally, the specific case of (1):

$$\ddot{x} - 2\delta\dot{x} + w_0^2(1+u)x = \xi(t) \quad (3) \text{ with } w_0 = 5$$

was solved on the electronic model computer MN-7. Even the first theoretical approximation showed a satisfactory correspondence with the exact experimental numerical solution, for a comparatively large depth of modulation of the parameter u 's limit, up to $k = 5$. The author thanks Yu. M. Romanovskiy, G.E. Kolosov and V.I. Shmalgausen for valuable advices and interest in this work. Orig. art. has 1 figure, 11 formulas and 1 table.

SUB CODE: 09, 13/ SUBM DATE: 19Sep64/ ORIG REF: 001/ OTH REF: 001

Card 2/2

IVANOV, S.A.

New materials for high-rise buildings. Stroi. mat. 11 no.7:
28-31 Jl '65. (MIRA 18:8)

1. Zamestitel' nachal'nika Glavnogo upravleniya premyshlennosti
stroitel'nykh materialov i stroitel'nykh detaley Moskovskogo
gorodskogo soveta deputatov trudyashchikhsya.

IVANKOV, S.A. (Moscow)

Number of iterations in Markov chains. Teor. veroyat. i ee prim.
10 no.3:557-560 '65. (MIRA 18:9)

IVANOV, S.A., inzh.; STAROVEROV, M.I.; KHARADZHA, F.N., prof.; TSVETKOV, A.V.,
inzh.

Surface insulation strength of the glass bulbs of high-voltage vacuum
apparatus operating in compressed gas media. Elektrichestvo no.7:29-
31 Jl '64. (MIRA 17:11)

1. Leningradskiy elektrotekhnicheskiy institut im. Ul'yanova (Lenina).

IVANOV, S.A.; ROMANOVSKIY, Yu.M.

Forced oscillations in a parametric stage with pumping using the sum of two harmonic voltages with near frequencies. Radiotekh. i elektron. 9 no.3:551-553 Mr '64. (MIRA 17:4)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

IVANOV, Str.B.

Qualitative improvement of prophylactic and therapeutic services.
Stomatologija no.1:56-62 '54. (MEAL 3:7)
(DENTISTRY,

*in Bulgaria, prev. & ther. serv., qualitative aspect)

Ivanov, S.

BULGARIA / Human and Animal Morphology, Normal and Pathological. S-1
Digestive System.

Abs Jour : Ref Zhur - Biol., No 18, 1958, No 83593

Author : Ivanov, S.

Inst : Not given

Title : Anomalies in the Embryonic Development and Eruption of Teeth
(Dentitio Praecox). (Case of Birth of Child with Teeth).

Orig Pub : Stomatologiya (Bul"g.), 1956, No. 3, 217-218.

Abstract : No abstract given.

Card 1/1

2

VIZOL'NIKSKIY, V.N., kand. ist. nauk, red.; GRANCHAK, I.M.,
red.; IVANOV, S.D., red.; KLIMPOTYUK, N.V., red.;
KUCHERUK, V.M., red.; SEMION, I.V., red.

[Soviet Transcarpathia; a reference book] Sovetskoe
Zakarpat'e; spravochnik. Uzhgorod, Karpaty, 1965. 221 p.
(MIRA 18:9)

CHTOFSKII, Ye. V.; Ivanov, S. D.

Analyzing transient processes in axial-flow hydraulic turbines by
static characteristics. Trudy IPI no. 215:82-100 '61,
(MTRA 14:11)
(Hydraulic turbines)

IVANOV, S.D.

Division and correlation of continental Neogene sediments in
Turkmenia. Trudy VNIGNI no.35:251-262 '61. (MIRA 16:7)
(Turkmenistan—Geology, Stratigraphic)

GVARDIONOV, B.O. [Hvardionov, B.O.], red.; IVANOV, S.D., red.;
LUCHKIV, M.R., tekhn. red.

[Hold high the honor of the grain grower] Dorozhit'
chestiu khliborova. Uzhhorod, Zakarpats'ke obl. kryzhkovo-
gazetne vyd-vo, 1962. 125 p. (MIRA 16:5)
(Agricultural workers)

LUKASHENKO, Ivan Andreyevich; KRAVTSOV, Boris Kravtsov; SHVETS, Zoya Aleksandrovna; IVANOV, Sergey Dmitriyevich; KOMENDANT, K.P., red.; BABIL'CHANOV, G.A., tekhn. red.

[Asbestos-cement elements for industrial buildings] Asbesto-tsementnye konstruktsii dlia promyshlennnykh zdanii. Kiev, Gosstroizdat USSR, 1962. 48 p. (MIRA 15:9)
(Asbestos cement) (Walls)

ACC NR: AP7004590

SOURCE CODE: UR/0094/66/000/01.0/0054/0055

AUTHOR: Ivanov, S. F.

ORG: none

TITLE: All-union scientific and technical conference on problems of the fuel-energy balance of the USSR

SOURCE: Promyshlennaya energetika, no. 10, 1966, 54-55

TOPIC TAGS: scientific conference, petroleum industry, coal

ABSTRACT: The conference was held in Moscow 4-6 May 1966. Approximately 700 participants from 65 cities took part. The reports in the conference covered such themes as: problems of efficient usage of the power resources in the branches of the national economy; the technical and economic problems of development of the primary branches of the fuel industry; conditions of fuel usage at metallurgical and other enterprises; technical and economic problems of development of the coal, oil and other industries; and problems in the transportation of fuel and power. [JPRS: 39,548]

SUB CODE: 21,05 / SUBM DATE: none

Card 1/1

PA 46/49T39

IVANOV, S. F.

USSR/Engineering
Fuel Conservation
Efficiency, Industrial

Aug 48

"Standardization of Fuel and Heat Expenditure in
Industrial Enterprises," S. F. Ivanov, Ye. D.
Pen'kovoy, Engineers, 2 pp

"Za Ekonomiyu Topliva" Vol V, No 8

Points out some faulty practices in establishing
progressive norms for factories.

46/49T39

KONTOROVICH, P.G.; IVANOV, S.G.; KONDRASHOV, G.P.

Distributive pairs of elements in the structure. Dokl. AN SSSR
160 no.5:1001-1003 F '65. (MIRA 18:2)

1. Submitted August 22, 1964.

IVANOV, S. G.

Nekotorye filosofskiye voprosy kibernetiki *[Certain Philosophical Problems of Cybernetics]*. Society for the Dissemination of Political and Scientific Knowledge of the RSFSR, Leningrad Department, Leningrad, 1960, 56 pages.

1. IVANOV, S. I.
2. USSR (600)
4. Electric Cables
7. Simplified method of installing cables. Rab. energ. 2 no. 11, 1952.
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

IVANOV, S. I.

"Current Problems of Seismic Investigation in the Arctic," Problemy seismiki Artiki, No.4, pp 70-80, 1940

Translation D 333219, 21 Oct 55

IVANOV, S.I.
IVANOV, S.I.

Ice-breaker used in conducting earthwork by the hydraulic fill
method. Rats. i izobr. predl. v stroi. no.3:35-38 '57. (MIRA 11:1)
(Ice-breaking vessels) (Dredging---Cold weather conditions)

IVANOV, S. [1.]

Rekonstruksiia Moskovskogo zhel-dor, uzla. / Reconstruction of Moscow railroad junction /
(Sots. transport, 1932, no. 11-12, p. 66-76).

DLC: HE7.S6

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress
Reference Department, Washington, 1952, Unclassified.

IVANOV, S. I.

The use of domestic resources in supplying the railroads with water. Moskva, Gos. transp. zhel-dor. izd-vo, 1946. 58 p. (50-40918)

TF290.I8

1. Railroads.-- Russia - Water-supply.

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000619120005-7

IVANOV, S. I.

210-4 IVANOV, S. I. Operativnoye Primenenie ikhtiola pri nekotorykh paralicheskikh litservoykh nerva. Trudy Kirgiz. s.-kh. in-ta im. Skryabina, vyp. 6, 1958, s. 121-28

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1959

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000619120005-7"

IVANOV, S.I.; ASTAPOV, S.I.; BELOUS, B.A., otv.red.; PEVZNER, A.S., zav.
red.izd-va; OSENKO, L.M., tekhn.red.

[Uniform time and pay standards for construction, assembly, and
repair operations in 1960] Edinye normy i rastsenki na stroi-
tel'nye, montazhnye i remontno-stroitel'nye raboty, 1960 g.
Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam.
Sbornik 23. [Electric-wiring operations] Elektromontazhnye raboty.
No.4. [200 kv. electric cable lines] Kabel'nye linii napriazheniem
do 220 kv. 1960. 51 p.
(MIRA 13:6)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam
stroitel'stva. 2. TSentral'noye normativno-issledovatel'skoye
byuro (TsNIB) Ministerstva stroitel'stva elektrostantsiy (for
Ivanov). 3. Normativno-issledovatel'skaya stantsiya (NIS) No.9
TSentral'nogo normativno-issledovatel'skogo byuro Ministerstva
stroitel'stva RSFSR (for Astapov).

(Wages) (Electric cables)

IVANOV S.I.

"Paralytic Stenosis of the Upper Respiratory Passages of Horses and Surgical Methods of Treatment." Dr Vet Sci, Kazan' State Veterinary Inst Imeni N. E. Bauman; Min Culture USSR, Frunze, 1954. (KL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

COUNTRY : USSR J
CATEGORY : Soil Science. Physical and Chemical Properties
ABS. JOUR. : Zem. Soil., No. 4, 1959, No. 155.
AUTHOR : Ivanov, S.I.
INST. : Belorussian Sci. Res. Inst. of Agriculture
TITLE : Reaction of Formation of Calcium phosphate in
Turf-Pedzolic Soils,
OPIG. PUB. : Byul. nauchno-tehn. inform. Belorusak. n.-i. in-ta
zeal ed., 1957, No.1, 30-32
ABSTRACT : The nature of the formation of phosphorus phosphate-
ions in turf-pedzolic soils is that of a sur-
face adsorption. Phosphate-ions, absorbed by
soils which are saturated with calcium, can be
metabolized by anions of $\text{Fe}(\text{OH})_6^{4-}$ in accord-
ance with the principles of Langmuir. There-
fore, intensification of the exchange of active
phosphate-ions of $\text{Ca}(\text{PO}_4)_2$, compounds with anions
of $\text{Fe}(\text{OH})_6^{4-}$ in an interaction with the soil
can represent both a process of hydrolysis of

Card: 72

Ivanov, S.I.
IVANOV, S.I. (Kuybishev)

Solution of the plane problem of the theory of elasticity by
the method of finite differences [In Ukrainian with summary in
Russian]. Prykl.mekh.3 no.3:339-344 '57. (MIRA 10:12)

1. Kuybishev's'kiy aviatsiyniy institut.
(Elasticity)

S/124/60/000/006/030/039
A005/A001

Translation from: Referativnyy zhurnal, Mekhanika, 1960, No. 6, p. 152, # 7859

AUTHOR: Ivanov, S.I.

TITLE: The Solution of Problems of Plain Plastic Torsion With Extension of Prismatic Rods by the Method of Elastic Solutions in Finite Differences ✓

PERIODICAL: Tr. Kuybyshevsk. aviats. in-t, 1958, No. 4, pp. 59-67

TEXT: The author considers the known problem of the elasto-plastic torsion of prismatic rods in the presence of a tensile force. For solving this problem, the elastic solution method is used, whereat the linear equations are replaced by equations in finite differences in every stage. It is exemplified. The convergence of the method is not considered. Reviewer's note: The author does not mention that the elastic solution method may diverge in the problem of elasto-plastic torsion (Koshelev, A.I., Vestn. Leningr. un-ta, 1957, No. 19, pp. 20-29 - RZhMekh, 1959, No. 11, # 14134). There are 4 references.

G.I. Dzhanelidze

Translator's note: This is the full translation of the original Russian abstract.
Card 1/1

NEKRASOV, N.I.; IVANOV, S.I., redaktor; KARYAGINA, M.S., tekhnicheskiy
redaktor.

[Organization of defense work in schools] Organizatsiya oboronnoi
raboty v shkole. Moskva, Izd-vo DOSAAF, 1956. 55 p. (MLRA 9:6)
(Civil defense)

BELOGORSKAYA, N.I.; GALININ, D.D.; GORYACHKIN, Ye.N.; GLAZYRIN, A.I.; DUBOV, A.G.;
YEVROPIN, Yu.P.; YENOKHOVICH, A.S.; ZVORYKIN, B.S.; IVANOV, S.I.; KRAUKLIS,
V.V.; LAVROVSKIY, K.F.; MENSHTUTIN, N.F.; MINCHENKOV, Ye.Ya.; NABOKOV, M.Ye.;
PERYSHKIN, A.V.; POPOV, P.I.; POKROVSKIY, A.A.; REZNIKOV, L.I.; SAKHAROV,
D.I.; SOKOLOV, I.I.; SOKOLOVA, Ye.N.; EVENCHIK, E.Ye.; YUS'KOVICH, V.F.

Sergei Nikolaevich Zharkov. [Obituary]. Fiz.v shkole 15 no.3:94-95 My-Je '56.
(Zharkov, Sergei Nikolaevich, 1883-1956) (MIRA 9:?)

POKROVSKIY, V.V. (st.Bel'shevo Moskovskoy oblasti); RUTKEVICH, N.V.; LEVIN, I.R..
(Tashkent); IVANOV, S.I. (Moskva); ROMANOV, F.A. (g.Zeya Amurskoy oblasti,
shkola rabschey moledzhi).

Laboratory exercises in physics. Fiz. v shkole 16 no.4:63-66 Jl-Ag '56.
(MLRA 9:9)

1.Stalinskaya shkola No.3 (for Pokrovskiy).2.Pervaya srednyaya shkola
(for Rutkevich). (Physics--Experiments)

IVANOV, S.I. (Moskva)

Seventieth birthday of professor D.D.Galanin, corresponding member of
the Academy of Pedagogic Sciences of the R.S.F.S.R. Fiz. v shkole 16
no.4:89-90 Jl-Ag '56.
(MLRA 9:9)
(Galanin, Dmitrii Dmitrievich, 1886-)

AUTHOR: Ivanov, S.I. (Moscow)

47-6-9/37

TITLE: On the Questions of Content, Structure and System of Exposition
of the Physics Course (K voprosu o soderzhanii, postroyenii i
sisteme izlozheniya kursa fiziki)

PERIODICAL: Fizika v Shkole, 1957, # 6, pp 48 - 49 (USSR)

ABSTRACT: The author enters into a dispute with V.F. Yus'kovich, saying
that the new program is no improvement of physics teaching.
A number of individual and minor technical questions pointed
out by V.F. Yuskovich do not promote polytechnical instruc-
tion but divert it from its fundamental aim.

Ivanov supports the graduated structure of the physics
course as the only one acceptable for the Soviet school. The
fact that the less busy middle classes have been relieved and
the burdened upper classes have been given additional tasks,
is one of the substantial deficiencies of the new program.
The author brings forward a few more arguments against the new
curriculum and refers to the methodical research made by the
Chair of Methods, Mathematics and Physics of the Moscow Oblast'
Pedagogical Institute.

ASSOCIATION: The Oblast' Pedagogical Institute, Moscow (Oblastnoy pedagogi-
cheskiy institut, Moskva)

AVAILABLE: Library of Congress
Card 1/1

AUTHORS: Ivanov, S.I., Shalinets, B.A., Myshlyayev, A.M. 47-6-36/37

TITLE: A Conference on the Method of Teaching Physics (Konferentsiya po metodike fiziki)

PERIODICAL: Fizika v Shkole, 1957, # 6, page 93 (USSR)

ABSTRACT: A scientific conference on the method of teaching physics took place at the Moskva Oblast' Pedagogical Institute with teachers from the city of Moscow and the Moscow Oblast' and representatives of the Moscow, Stalingrad, Krasnodar Mariyskiy [in Yoshkar-Ola], Kabardino-Balkarskiy, Tula, Yaroslavl, Berdichev, and Shuya pedagogical institutes, the Institut of Psychology APN and the Kaluga Oblast' Institute for the Improvement of Teachers.

The following reports were heard and discussed: S.I. Ivanov - "The Methods of Methodical Researches", O.N. Lapina - "The Rise and Development of Concepts of Temperature and Quantity of Heat" (at the 7-class school), Ye.Kh. Lyatker - "The Rise and Development (at the pre-school age and the 7-class school) of Basic Concepts in the Field of Electricity", T. Ya. Ishkova - "The Rise and Development (during the pre-school age and at the 7-class school) of Concepts of Magnetism", A.V. Selenginskiy - "On the Development of

Card 1/2

A Conference on the Method of Teaching Physics

47-6-36/37

"Concepts in the Field of Mechanics and Heat", L.I. Tigranova - "The Psychological Peculiarities of Pupils in Learning the Basic Concepts of Physics", A.N. Kaygorodov - "Conveying to the Students Skill in Making Measurements Before They Take up Studies in Physics", S.F. Shilova - "The Home Work of the Pupils in Physics, Difficulties and Mistakes in Carrying It Out", G.P. Kondrasheva - "Individual Observations Made on Two Pupils Doing Their Home Work in Physics", N. Ye. Parfent'yeva - "The Performance of Home Work in Physics by Pupils of a 7-class Boarding School".

The conference adopted resolutions on continuing and coordinating the scientific-research work into the method of teaching physics, on the question of forming physical concepts and obtaining skill, and also on the method of organizing home work. The Chair for Methods in Teaching Mathematics and Physics of the Moskva Oblast' Pedagogical Institute assumed the duty of organizing a mutual information program and rendering consultation on this subject.

AVAILABLE: Library of Congress

Card 2/2

AUTHOR: Ivanov, S.I., (Moscow) 47-58-2-19/30

TITLE: Experience of Teaching Geometric Optics in the 10th Grade
(Opyt prepodavaniya geometricheskoy optiki v X klasse)

PERIODICAL: Fizika v Shkole, 1958, Nr. 2, pp 74-77 (USSR)

ABSTRACT: The author comments on the article by N.F. Mershutin "Reflection and Refraction of Light" published in Nr 6 (1956) of this periodical, and presents his own plan to teach geometric optics to pupils of the 10th class. The most important task of the teacher is to connect each lesson with a practical experiment which confirms the theory.

ASSOCIATION: Oblastnoy pedagogicheskiy institut (The Moscow Oblast' Pedagogical Institute)

AVAILABLE: Library of Congress

Card 1/1 1. Physics-Study and teaching 2. Optics-Study and teaching

IVANOV, S. I.

AUTHOR: None Given SOV-47-58-5-26/28

TITLE: An All-Russian Conference on Textbooks in Physics (Vserossiyskoye soveshchaniye po uchebnikam fiziki)

PERIODICAL: Fizika v shkole, 1958, Nr 5, pp 90-95 (USSR)

ABSTRACT: From 23 to 26 June an All-Russian Conference took place at the RSFSR Ministry of Education which was devoted to the discussion of the composition of an ideal physics textbook. It was attended by a great number of teachers of physics from Moscow, Leningrad and other cities, by workers of pedagogical institutions and the Academy of Pedagogical Sciences. The following reports were heard: "The Place, System and Contents of a Course in Physics at the Secondary School" by V.F. Yus'kovich, Head of the Laboratory of Methods in Physics of the Institute of Methods of Instruction, RSFSR Academy of Pedagogical Sciences; "Requirements, a First Grade Physics Textbook Should Meet" by the Doctor of the Moscow Oblast Pedagogical Institute S.I. Ivanov; "An Analysis of English, French and US School Physics Textbooks" by L.I. Reznikov, Senior Scientific Worker of the Institute of Methods of Instruction; "An Analysis of Physics Textbooks for Secondary Schools in Czechoslovakia and the German Democratic Republic"

Card 1/2

IVANOV, S.I. (Moskva)

Remarks on the solution of problems involving vapors and
atmospheric moisture. Fiz. v. shkole 21 no.1:41-43 Ja-F '61.
(MIRA 14:9)
(Physics--Problems, exercises, etc.)

BELOGORSKAYA, N.I.; BLUDOV, M.I.; BRAVERMAN, E.M.; BULATOV, N.P.;
GALANIN, D.D.; GOL'DFARB, N.I.; YEVROPIN, G.P.; YEGOROV, A.L.
YEONOKHOVICH, A.S.; ZVORYKIN, B.S.; IVANOV, S.I.; KAMANETSKIY, S.Ye.;
KRAUKLIS, V.V.; LISENKER, G.R.; MALOV, N.N.; MANOVETOVA, G.P.;
MENSHUTIN, N.F.; MINCHENKOV, Ye.Ya.; PERYSHKIN, A.V.; FOKROVSKIY, A.A.;
POPOV, P.I.; RAYEVA, A.F.; REZNIKOV, L.I.; SOKOLOV, I.I.; YUSKOVICH,
V.F.; ZVENCHIK, Z.Ye.

Dmitrii Ivanovich Sakharov; obituary. Fiz.v shkole 22 no.1:109-
110 Ja-F '62. (MIRA 15:3)
(Sakharov, Dmitrii Ivanovich, 1889-1961)

BELOGORSKAYA, N.I.; BLUDOV, M.I.; GALANIN, D.D.; YEVROPIN, G.P.;
POKROVSKIY, A.A.; POPOV, P.I.; ZVORYKIN, B.S.; IVANOV, S.I.;
KRAUKLIS, V.V.; MINCHENKOV, Ye.Ya.; PERYSHKIN, A.V.; REZNIKOV, L.I.;
SOKOLOV, I.I.; SUBOROV, N.P.; YUS'KOVICH, V.F.

Evgenii Nikolaevich; obituary: Fiz.v shkole 22 no.1:111 Ja-F
'62. (MIRA 15:3)
(Goriachkin, Evgenii Nikolaevich, 1895-1961)

IVANOV, S.I. (Moskva)

Notes on the method of studying thermal expansion. Fiz.v shkole
22 no.6:44-45 N-D '62. (MIRA 16:2)
(Expansion (Heat))
(Physics—Study and teaching)

IVANOV, S.I. (Moskva); BERYABIN, V.M. (Tobol'sk)

Interrelation of mathematics and physics in operations with
denominate numbers. Mat. v shkole no.5:48-50 S-0 '63.

(MIRA 16:11)

PREOBRAZHENSKAYA, Yelena Ivanovna; BALAKH, R.V., orv. red.;
IVANOV, S.I., red.; FAKTOR, B.S., tekhn. red.

[Gas drainage from Karaganda Basin coal seams] Dega-
zatsiia ugol'nykh plastov v Karagandinskem basseine.
Alma-Ata, Tsentral'nyi in-t nauchno-tekhn. informatsii,
1960. 20 p. (MERA 17:3)

IVANOV, S.I. (Moskva)

A review of mechanics in the course of solving problems
in electrostatics. Fiz. v shkole 23 no.5:37-39 S-3 '63.
(MIRA 17:1)

L 04057-67 EWT(1)/EWT(n)/EWT(w) NIF(c) EN/JD

ACC NR: AR6026315

SOURCE CODE: UR/0277/66/000/004/0090/0090

32
B

AUTHOR: Ivanov, S. I.

TITLE: Effect which the position of a bending point has on the level of assembly stresses in a pipeline

SOURCE: Ref. zh. Mashinostr mat konstr i raschet detal mash. Gidropr, Abs. 4.48.731

REF SOURCE: Tr. Kuybyshevsk. aviats, in-t, vyp. 19, 1965, 307-314

TOPIC TAGS: pipeline, metal stress

ABSTRACT: The author studies the effect which a bending point has on the magnitude of assembly stresses in a pipeline to determine the maximum possible stresses. In evaluating the stresses with respect to a given bending point, the calculation must be done for lowest pliability. [Translation of abstract]

SUB CODE: 20

kn

Card 1/1

UDC: 621.643.001.5

ACC NR: AP6025632

SOURCE CODE: UR/0413/66/000/013/0084/0084

INVENTOR: Bespamyatnov, V. V.; Ivanov, S. I.; Anshukov, V. I.

ORG: None

TITLE: A device for obtaining information on the moment of excitation of seismic waves. Class 42, No. 183413

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 84

TOPIC TAGS: seismic wave, electronic equipment

ABSTRACT: This Author's Certificate introduces a device for obtaining information on the moment of excitation of seismic oscillations. The installation contains a master oscillator, input keying unit and output unit. To improve reliability in obtaining information on the moment of excitation, a time vernier computer and a unit for shaping output signals represented by the number of code pulse sets are connected in series between the keying and output units.

SUB CODE: 09, 08/ SUBM DATE: 11Jan65

Card 1/1

UDC: 550.340,84

ACC NR: AP7001413

(A)

SOURCE CODE: UR/0413/66/000/021/0125/0125

INVENTORS: Bespamyatnov, V. V.; Ivanov, S. I.; Anshukov, V. I.

ORG: none

TITLE: A method for recording the excitation instant of seismic signals. Class 42,
188049

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 125

TOPIC TAGS: seismic prospecting, seismograph, seismography, seismologic instrument,
seismology

ABSTRACT: This Author Certificate presents a method for recording the excitation instant of seismic signals. To increase the probability of obtaining information from the instant of excitation, a continuously marking scribe is started at the moment of explosion. The periodic sequence of the delivered impulses is recorded on the seismogram and delivers the information on the time elapsed since the excitation moment throughout the entire period of recording the signals by the seismic wave receivers.

SUB CODE: 08/ SUBM DATE: 18Feb65

Card 1/1

UDC: 550.834

IVANOV, S.K., glavnyy metodist pavil'ona; MANOKHINA, L.I., starshiy
ekskursoved pavil'ona.

"Stockbreeding" pavilion. Est. v shkole no.1:76-85 Ja-F '55.
(Stock and stockbreeding) (MIRA 8:3)

Ivanov, S.Kh.

BULGARIA/General and Special Zoology. Insects. Injurious P
Insects and Ticks. Pests of Fruit and Berry Crops

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 49680

Author : Ivanov S.Kh.

Inst : -

Title : The Almond Seed-Eater (Eurytoma amygdali) and
Possibilities of Its Control

Orig Pub : Byul. rastit. zashchita, 1957, 6, No 1, 64-67

Abstract : No abstract

Card : 1/1

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619120005-7"

Ivanov, S.K.
Improving the cyclones of exhaust systems. Der.prom. 11 no.11:
23-24 N 162. (MIRA 15:12)

1. Dormidontovskiy lesozavod Khabarovskogo soveta narodnogo
khozyaystva.
(Separators (Machines))

S/081/61/000/020/075/089
B106/B147

AUTHORS: Isagulyants, V. I., Tishkova, V. N., Ivanov, S. K.

TITLE: Ionites and their use in catalytic synthesis

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 321, abstract
20L45 ([Tr.] Groznensk. neft. in-t, sb. 23, 1960, 137-145)

TEXT: The alkylation reaction of phenol with a fraction of polymer gasoline in the presence of cationite KY-2 (KU-2) was investigated under static conditions and according to a continuous system. The dependence of the phenol conversion rate on the temperature and reaction time was determined. [Abstracter's note: Complete translation.]

Card 1/1

AKUTIN, G.K. [Akutin, H.K.]; GAYEVENKO, Yu.O. [Haievenko, IU.O.];
BYACHENKO, M.Ya.; ZHAROV, M.T.; IVANOV, S.K.; KARYTUSHIN,
I.B.; KLODNIITSKIY, I.I. [Klodnyts'kyi, I.I.]; KOBUS, Yu.Y.
[Kobus, IU.I.]; KOZLYU, V.I. [Kozliuk, V.I.]; KORYTNIKOV,
V.P.; KOROBKO, M.I.; KOSTOGRIZOV, V.S. [Kostohryzov, V.S.];
LADIYEV, R.Ya. [Ladiiev, R.IA.]; MARTENIUK, G.P. [Martyntuk,
H.I.]; MEL'NIK, P.M.; kand.tekhn.nauk; NAVOL'NIV, S.Ya. . :
[Navol'niv, S.IA.]; SIN'KOV, V.M.; SPINU, G.O. [Spynu, H.O.];
SHOKHET, L.A.; SHUMILOV, K.A.; KORSAK, Yu.Ye. [Korsak, IU.IE.],
red.; LAGUTIN, I.A. [Iahutin, I.A.], tekhn.red.

[Automation in industry] Avtomatizatsiya v promyslovosti.
Kyiv, Derzh.vyd-vo tekhn.lit-ry URSR, 1960. 288 p.

(MIRA 14:12)

(Automation) (Industrial management)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000619120005-7

BEZOBRZOV, B.B.; GONCHAROV, V.I.; IVANOV, S.K.; POLIVANOV, N.M.

Interchangeable bushing for ceramic abrasive conveyers. Kozh.
obuv.prom. 4 no.1:35 Ja '62. (MIRA 15:3)
(Shoe manufacture—Equipment and supplies)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000619120005-7"

IVANOV, S.K.; KOVALEVSKAYA, V.I.; KRUT'KO, V.T.; RUDENSKIY, I.M.

The VKL-200 pneumatic fan. Bezop.truda v prom. 5 no.1:21-22 Ja '61.
(MIRA 14:2)

1. Dongiugouglemash.
(Mine ventilation)

GORIN, F.; IVANOV, S.

Coal Mines and mining

Establishing order in construction work of the coal industry. Za ekon. mat. No. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.